

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P307074

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-CA08-W2A-U-4500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P307074
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L82765-HRP-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4500K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2159.0 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

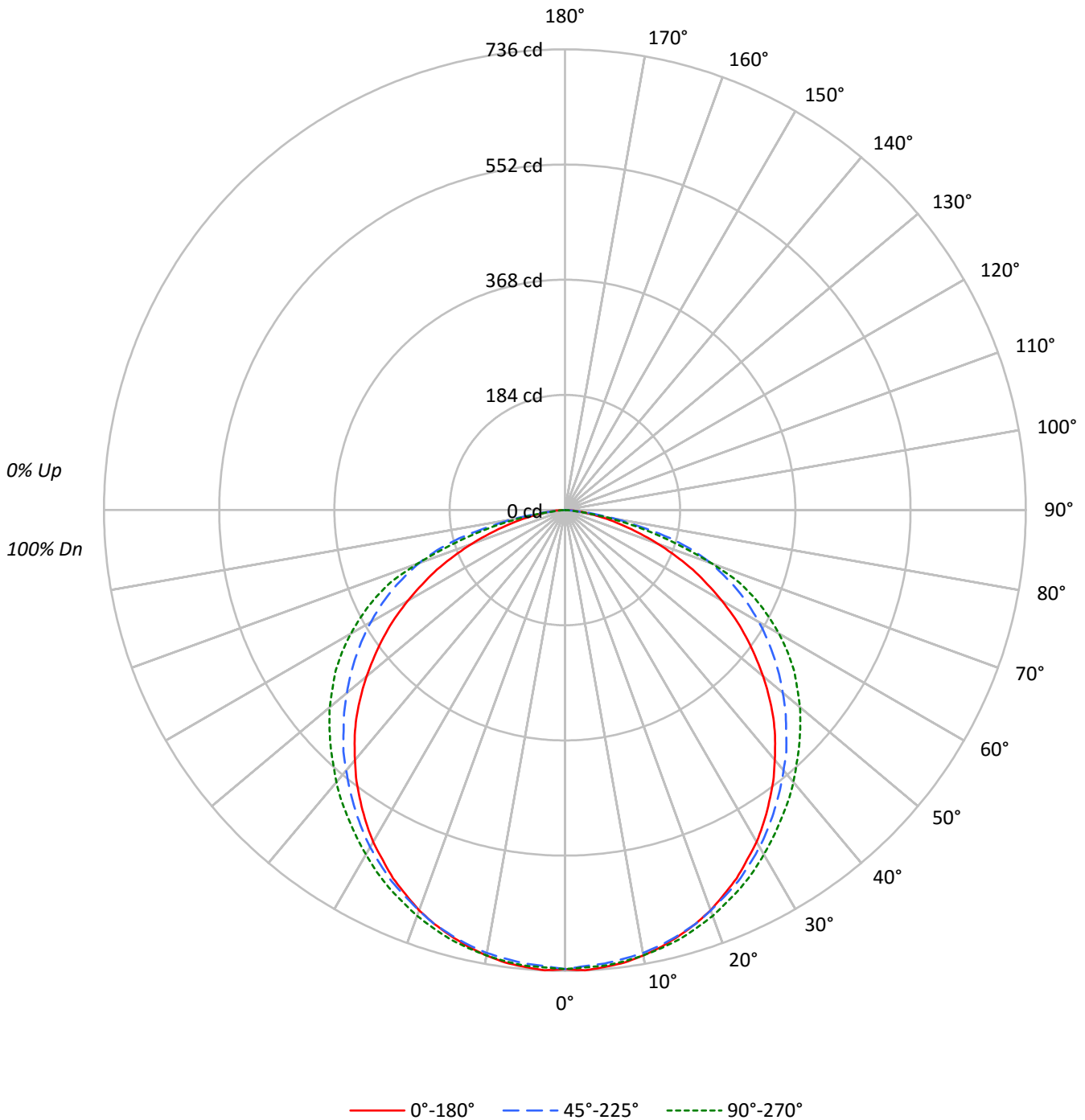
Input Watts (W): 24.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1973	1973	1973
5°	1979	1964	1973
10°	1974	1963	1974
15°	1961	1958	1976
20°	1948	1950	1975
25°	1927	1943	1975
30°	1903	1932	1974
35°	1869	1918	1978
40°	1832	1908	1994
45°	1793	1902	2015
50°	1731	1901	2052
55°	1656	1911	2096
60°	1556	1926	2123
65°	1435	1945	2136
70°	1250	1950	1965
75°	1030	1814	1589
80°	810	1305	1063
85°	630	503	250



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.4	3.2
10°-20°	199.2	9.2
20°-30°	302.5	14.0
30°-40°	366.5	17.0
40°-50°	386.2	17.9
50°-60°	360.6	16.7
60°-70°	288.1	13.3
70°-80°	158.5	7.3
80°-90°	28.0	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	571.1	26.5
0°-40°	937.6	43.4
0°-60°	1684.3	78.0
0°-90°	2159.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2159.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	733	733	733	733	733	
5°	732	730	727	732	730	70
15°	704	704	703	709	709	199
25°	649	650	654	664	665	299
35°	569	574	584	599	602	356
45°	471	480	500	522	530	362
55°	353	371	407	436	447	315
65°	225	254	306	331	335	222
75°	99	142	174	157	153	107
85°	20	26	16	10	8	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	733.2	733.2	733.2	733.2	733.2
2.5°	735.9	733.9	729.1	733.2	731.2
5°	732.5	730.5	727.1	731.8	730.5
7.5°	729.1	726.4	723.0	728.5	727.1
10°	722.3	720.3	718.3	723.0	722.3
12.5°	714.2	713.5	711.5	716.9	716.2
15°	704.0	704.0	702.7	709.4	709.4
17.5°	693.2	692.5	693.2	700.6	699.9
20°	680.3	680.3	680.9	689.8	689.8
22.5°	664.6	665.3	667.4	678.2	677.5
25°	649.0	650.4	654.5	664.0	665.3
27.5°	630.0	633.4	638.2	649.7	651.1
30°	612.4	614.4	621.9	632.7	635.4
32.5°	591.3	595.4	603.5	615.8	619.2
35°	568.9	574.3	583.9	598.8	602.2
37.5°	546.5	551.3	564.2	579.8	585.9
40°	521.4	529.5	543.1	560.8	567.6
42.5°	497.0	505.1	523.4	541.8	547.9
45°	471.2	480.0	499.7	522.1	529.5
47.5°	442.6	452.8	477.9	501.7	509.9
50°	413.4	426.3	454.2	480.7	490.2
52.5°	382.9	399.2	431.1	458.9	467.8
55°	353.0	370.7	407.3	435.9	446.7
57.5°	322.5	341.5	382.9	415.5	421.6
60°	289.2	312.3	357.8	386.3	394.4
62.5°	256.6	283.1	332.0	359.1	365.9
65°	225.4	253.9	305.5	330.6	335.4
67.5°	191.4	225.4	276.3	299.4	300.8
70°	158.9	198.2	247.8	258.7	249.8
72.5°	127.0	169.0	214.5	205.7	198.2
75°	99.1	141.9	174.5	156.8	152.8
77.5°	73.3	116.1	124.9	115.4	107.9
80°	52.3	91.7	84.2	72.0	68.6
82.5°	36.0	57.7	46.2	36.0	31.2
85°	20.4	25.8	16.3	10.2	8.1
87.5°	8.8	6.1	3.4	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)